PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF EXCLUSIVE/PERMISSIVE PHASING FOR EASTBOUND RUSSELL AVENUE AT ITS INTERSECTION WITH MD 124 IN MONTGOMERY COUNTY. MD 124 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN AN EIGHT PHASE FULLY-TRAFFIC-ACTUATED MODE WITH MD 124 OPERATING IN A LEAD-LAG MANNER. EXCLUSIVE/PERMISSIVE LEFT TURN PHASING WILL BE PROVIDED FOR THE RUSSELL AVENUE APPROACHES.

2. SPECIAL OPERATION

THE INTERSECTION OPERATION WILL INCLUDE A FIREHOUSE PRE-EMPTION INDICATION. THE CONNECTION IS HARDWIRED INTO THE FIREHOUSE LOCATED IN THE NORTHWEST QUADRANT.

CONTROLLER REQUIREMENTS

THE EXISTING FULLY-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET WILL BE UTILIZED.

PROJECT CONTACTS

CONTACTS FOR DISTRICT 3:

MR. LEE STARKLOFF
ASSISTANT DISTRICT ENGINEER - TRAFFIC, MONT. CO.
PHONE: (301) 513-7358

MR. AUGIE REBISH
DISTRICT UTILITIES ENGINEER
PHONE: (301) 513-7350

MR. RALEIGH MEDLEY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

THE POWER COMPANY REPRESENTATIVE:
MS. ELIZA HEMINGWAY
POTOMAC ELECTRIC POWER COMPANY
PHONE: (301) 931-2880

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7676

CONTACTS FOR MONTGOMERY COUNTY:
MR. BOB GONZALES
MONTGOMERY COUNTY DPWT
PHONE: (240) 777-8761

MR. MIKE KINNEY
MONTGOMERY COUNTY DPW-ATMS
PHONE: (240) 777-8760

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

QUANTITY	DESCRIPTION
99 S.F.	SHEET ALUMINUM SIGN
	- 3 EACH R10-12 (30"x36")
	- 3 EACH W11-2 (36"x36"), W16-7R (30"x18")
	- 3 EACH W11-2 (36"x36"), W16-7L (30"x18")

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY	DESCRIPTION
ALL REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR	

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PHASE 1+6	◁G-	◁G-	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1+6 CHANGE	◁Y-	◁Y-	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2+6	◁R-	◁R-	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	WALK	WALK	DW	DW
PED CLEAR	◁R-	◁R-	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2+6 CHANGE	◁R-	◁R-	Y	Y	*	*	*	*	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2+5	◁R-	◁R-	R	R	◁G/G	G	◁G/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
2+5 CHANGE	◁R-	◁R-	R	R	◁Y/Y	Y	◁Y/Y	Y	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3+7	◁R-	◁R-	R	R	R	R	R	R	◁G/R	◁G/R	R	◁G/R	R	◁G/R	R	R	R	DW	DW	DW	DW
3+7 CHANGE	◁R-	◁R-	R	R	R	R	R	R	◁Y/R	◁Y/R	R	**	R	**	R	R	R	DW	DW	DW	DW
PHASE 3+8	◁R-	◁R-	R	R	R	R	R	R	R	R	R	◁G/G	G	◁G/G	G	R	R	DW	DW	DW	DW
3+8 CHANGE	◁R-	◁R-	R	R	R	R	R	R	R	R	R	◁Y/G	G	◁Y/G	G	R	R	DW	DW	DW	DW
PHASE 4+7	◁R-	◁R-	R	R	R	R	R	R	◁G/G	◁G/G	G	R	R	R	R	R	R	DW	DW	DW	DW
4+7 CHANGE	◁R-	◁R-	R	R	R	R	R	R	◁Y/G	◁Y/G	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4+8	◁R-	◁R-	R	R	R	R	R	R	G	G	G	G	G	G	G	R	R	DW	DW	DW	DW
4+8 CHANGE	◁R-	◁R-	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 4+8 ALT	◁R-	◁R-	R	R	R	R	R	R	G	G	G	G	G	G	G	R	R	DW	DW	WALK	WALK
PED CLEAR	◁R-	◁R-	R	R	R	R	R	R	G	G	G	G	G	G	G	R	R	DW	DW	FL/DW	FL/DW
4+8 ALT. CHANGE	◁R-	◁R-	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
FLASHING OPERATION	FL/◁R-	FL/◁R-	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

* = G IF PHASE 2 + 6 GOES TO PHASE 2 + 5
* = Y IF PHASE 2 + 6 GOES TO PHASE 3 + 7

** = ◁G/R IF PHASE 3 + 7 GOES TO PHASE 3 + 8 OR 4 + 8
** = ◁Y/R IF PHASE 3 + 7 GOES TO PHASE 4 + 7

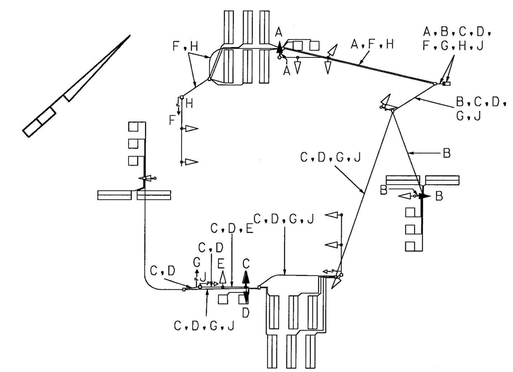
FIREHOUSE PRE-EMPTION

FIREHOUSE PRE-EMPTION	◁R-	◁R-	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	DW	DW	DW	DW
PRE-EMPTION CLEARANCE	◁R-	◁R-	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA.	MAINTENANCE OF TRAFFIC
2001	7 C.Y.	CLASS 2 EXCAVATION
5001	5 EA.	HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW
5003	13 EA.	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
5004	475 L.F.	12 INCH WHITE HEAT APPLIED THERMOPLASTIC PAVEVENT MARKING
5006	250 L.F.	F & I 5" WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5008	540 L.F.	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS- ANY WIDTH
6001	110 L.F.	F & I DEPRESSED CURB AND GUTTER
6002	200 L.F.	F & I STANDARD TYPE A COMBINATION CURB & GUTTER 12 IN. GUTTER PAN 8 IN. DEPTH
6004	1250 L.F.	4 INCH CONCRETE SIDEWALK
7000	3 HR	SELECTIVE TREE TRIMMING
8000	1 LS.	RELOCATE EXISTING SIGN AND SUPPORT
8010	4 EA.	F & I 12 INCH PEDESTRIAN SIGNAL HEAD SECTION
8011	11 EA.	F & I 12 INCH VEHICLE SIGNAL HEAD SECTION
8019	9 EA.	F & I 8 INCH VEHICLE SIGNAL HEAD SECTION
8032	2 EA.	F & I PUSHBUTTON AND SIGN (R10-4(1) PUSH BUTTON TO CROSS MONTGOMERY VILLAGE AVE. 9"X12")
8048	1 EA.	REMOVE & DISPOSE OF MATERIAL & EQUIPMENT PER ASSIGNMENT
8076	76.5 S.F.	INSTALL GROUND MOUNTED SIGN
8077	22.5 S.F.	INSTALL OVERHEAD SIGN
8084	560 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO 14 AWG)
8085	560 L.F.	F & I ELECTRICAL CABLE - 3 CONDUCTOR (NO 14 AWG)
8086	20 L.F.	F & I ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8087	1015 L.F.	F & I ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)



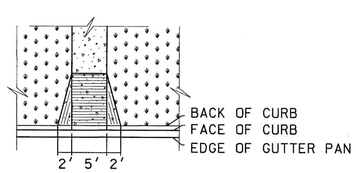
WIRING KEY

A,B, C,D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

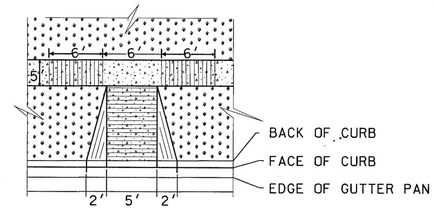
E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

F,G } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

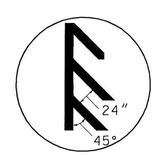
H,J } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)



DETAIL A: PEDESTRIAN RAMP WITH GRASS STRIP PERPENDICULAR TO CURB
12:1 MAXIMUM SLOPE FOR DESIGN



DETAIL B: PEDESTRIAN RAMP BETWEEN GRADES
12:1 MAXIMUM SLOPE FOR DESIGN



DETAIL C: CROSSWALK

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CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TELE:(410)728-2900 FAX:(410)728-3160

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 124 AND RUSSELL AVENUE
GAITHERSBURG, MARYLAND

DRAWN BY: JH	F.A.P. NO. AC-STPG-000S(786)E	TS NO. ~~4193A~~ 206 A	SHEET NO.
CHECKED BY: BLB	S.H.A. NO. XX/106528S	T.I.M.S. NO. F132	2 OF 2
SCALE: NONE	COUNTY: MONTGOMERY		
DATE: 08/2002	LOG MILE: 15012404.85		